

SEQUENCE LISTING

<110> CHUGAI SEIYAKU KABUSHIKI KAISHA

<120> Ameliorative agent for low vasopressin concentration

<130> PH-944-PCT

<150> JP 11-189322

<151> 1999-07-02

<160> 75

<170> PatentIn Ver. 2.0

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cggtaagct cac 133

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<210> 41

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<211> 118

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<213> Mus musculus

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Ser Ala Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser Thr Tyr Thr

20 25 30

Ile Glu Trp Tyr Gln Gln Gln Pro Leu Lys Pro Pro Lys Tyr Val Met

35 40 45

Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp

50 55 60

Arg Phe Ser Gly Ser Ser Ser Gly Ala Asp Arg Tyr Leu Ser Ile Ser

65 70 75 80

Asn Ile Gln Pro Glu Asp Glu Ala Met Tyr Ile Cys Gly Val Gly Asp

85 90 95

Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Val

100 105 110

Thr Val Leu Gly Gln Pro

115

<210> 46

<211> 118

<212> PRT

<213> Mus musculus

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Glu Val Gln Leu Val Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Gly

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	35		40		45
Ala Thr Ile Ser Ser Gly Gly Ser Tyr Thr Tyr Tyr Pro Asp Ser Val					
	50		55		60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr					
	65		70		75
Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met Phe Tyr Cys					
	85		90		95
Ala Arg Gln Thr Thr Met Thr Tyr Phe Ala Tyr Trp Gly Gln Gly Thr					
	100		105		110
Leu Val Thr Val Ser Ala					
	115				

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<212> PRT

<213> Homo sapiens

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Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser Leu Gly Ala					
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Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser Thr Tyr Thr					
	20		25		30
Ile Glu Trp His Gln Gln Gln Pro Glu Lys Gly Pro Arg Tyr Leu Met					
	35		40		45
Lys Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp					
	50		55		60
Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser					

65 70 75 80
 Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Val Gly Asp
 85 90 95
 Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu
 100 105 110
 Thr Val Leu Gly
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<211> 118

<212> PRT

<213> Homo sapiens

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 20 25 30
 Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Lys Tyr Leu Met
 35 40 45
 Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp
 50 55 60
 Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser
 65 70 75 80
 Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Val Gly Asp
 85 90 95
 Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu
 100 105 110
 Thr Val Leu Gly Gln Pro

<210> 49

<211> 118

<212> PRT

<213> Homo sapiens

<400> 49

Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser Leu Gly Ala

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Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser Thr Tyr Thr

20

25

30

Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Lys Tyr Val Met

35

40

45

Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp

50

55

60

Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser

65

70

75

80

Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Val Gly Asp

85

90

95

Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu

100

105

110

Thr Val Leu Gly Gln Pro

115

<210> 50

<211> 118

<212> PRT

<213> Homo sapiens

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Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser Leu Gly Ala

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Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser Thr Tyr Thr

20 25 30

Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Arg Tyr Leu Met

35 40 45

Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp

50 55 60

Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser

65 70 75 80

Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Val Gly Asp

85 90 95

Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu

100 105 110

Thr Val Leu Gly Gln Pro

115

<210> 51

<211> 118

<212> PRT

<213> Homo sapiens

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Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser Thr Tyr Thr

20 25 30

Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Arg Tyr Val Met
 35 40 45

Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp
 50 55 60

Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser
 65 70 75 80

Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Val Gly Asp
 85 90 95

Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu
 100 105 110

Thr Val Leu Gly Gln Pro
 115

<210> 52

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<212> PRT

<213> Homo sapiens

<400> 52

Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser Leu Gly Ala
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Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser Thr Tyr Thr
 20 25 30

Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Lys Tyr Leu Met
 35 40 45

Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp
 50 55 60

Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser
 65 70 75 80

Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly Val Gly Asp

85

90

95

Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu

100

105

110

Thr Val Leu Gly Gln Pro

115

<210> 53

<211> 118

<212> PRT

<213> Homo sapiens

<400> 53

Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser Leu Gly Ala

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5

10

15

Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser Thr Tyr Thr

20

25

30

Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Arg Tyr Leu Met

35

40

45

Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp

50

55

60

Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser

65

70

75

80

Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly Val Gly Asp

85

90

95

Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu

100

105

110

Thr Val Leu Gly Gln Pro

115

<210> 54

<211> 118

<212> PRT

<213> Homo sapiens

<400> 54

Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser Leu Gly Ala

1 5 10 15

Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser Thr Tyr Thr

20 25 30

Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Lys Tyr Val Met

35 40 45

Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp

50 55 60

Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser

65 70 75 80

Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly Val Gly Asp

85 90 95

Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu

100 105 110

Thr Val Leu Gly Gln Pro

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<213> Homo sapiens

<400> 55

Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser Leu Gly Ala

1 5 10 15

Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser Thr Tyr Thr

20 25 30

Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Arg Tyr Val Met

35 40 45

Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly Ile Pro Asp

50 55 60

Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser

65 70 75 80

Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly Val Gly Asp

85 90 95

Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly Thr Lys Leu

100 105 110

Thr Val Leu Gly Gln Pro

115

<210> 56

<211> 118

<212> PRT

<213> Homo sapiens

<400> 56

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg

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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr

20 25 30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val

35 40 45
 Ala Thr Ile Ser Ser Gly Gly Ser Tyr Thr Tyr Tyr Pro Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Gln Thr Thr Met Thr Tyr Phe Ala Tyr Trp Gly Gln Gly Thr
 100 105 110
 Leu Val Thr Val Ser Ser
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<213> Mus musculus

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<222> (58).. (411)

<400> 57

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-15

-10

-5

gtc cag tgt gag gtc caa ctg gtc gag tct ggg gga gac tta gtc aag	96
Val Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Asp Leu Val Lys	
-1 1 5 10	
cct gga ggg tcc ctg aaa ctc tcc tgt gca gcc tct gga ttc act ttc	144
Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe	
15 20 25	
agt agc tat ggc atg tct tgg att cgc cag act cca gac aag agg ctg	192
Ser Ser Tyr Gly Met Ser Trp Ile Arg Gln Thr Pro Asp Lys Arg Leu	
30 35 40 45	
gag tgg gtc gca acc att agt agt ggt ggt agt tac acc tac tat cca	240
Glu Trp Val Ala Thr Ile Ser Ser Gly Gly Ser Tyr Thr Tyr Tyr Pro	
50 55 60	
gac agt gtc aag ggg cga ttc acc atc tcc aga gac aat gcc aag aac	288
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn	
65 70 75	
acc cta tac ctg caa atg agc agt ctg aag tct gag gac aca gcc atg	336
Thr Leu Tyr Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met	
80 85 90	
ttt tac tgt gca aga cag act act atg act tac ttt gct tac tgg ggc	384
Phe Tyr Cys Ala Arg Gln Thr Thr Met Thr Tyr Phe Ala Tyr Trp Gly	
95 100 105	
caa ggg act ctg gtc act gtc tct gca	411
Gln Gly Thr Leu Val Thr Val Ser Ala	
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<213> Homo sapiens

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<222> (58).. (411)

<400> 58

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gtc cag tgt cag gtg cag ctg gtg gag tct ggg gga ggc gtg gtc cag 96
Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln
-1 1 5 10
cct ggg agg tcc ctg aga ctc tcc tgt gca gcc tct gga ttc acc ttc 144
Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
15 20 25
agt agc tat ggc atg tct tgg gtc cgc cag gct cca ggc aag ggg ctg 192
Ser Ser Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
30 35 40 45
gag tgg gtg gca acc att agt agt ggt ggt agt tac acc tac tat cca 240
Glu Trp Val Ala Thr Ile Ser Ser Gly Gly Ser Tyr Thr Tyr Tyr Pro
50 55 60
gac agt gtg aag ggg cga ttc acc atc tcc aga gac aat tcc aag aac 288
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
65 70 75
acg ctg tat ctg caa atg aac agc ctg aga gct gag gac acg gct gtg 336

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val

80

85

90

tat tac tgt gcg aga cag act act atg act tac ttt gct tac tgg ggc 384

Tyr Tyr Cys Ala Arg Gln Thr Thr Met Thr Tyr Phe Ala Tyr Trp Gly

95

100

105

cag gga acc ctg gtc acc gtc tcc tca

411

Gln Gly Thr Leu Val Thr Val Ser Ser

110

115

<210> 59

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<212> PRT

<213> Homo sapiens

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Lys Ala Ser Gln Asp Val Asn Thr Ala Val Ala

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<210> 60

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<212> PRT

<213> Homo sapiens

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Ser Ala Ser Asn Arg Tyr Thr

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<210> 61

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Pro Tyr Trp Met Gln

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<211> 16

<212> PRT

<213> Homo sapiens

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<210> 65

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tct ttc tcc caa ctt gtg ctc act cag tca tct tca gcc tct ttc tcc 96

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ctg gga gcc tca gca aaa ctc acg tgc acc ttg agt agt cag cac agt 144

Leu Gly Ala Ser Ala Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser

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25

acg tac acc att gaa tgg tat cag caa cag cca ctc aag cct cct aag 192

Thr	Tyr	Thr	Ile	Glu	Trp	Tyr	Gln	Gln	Gln	Pro	Leu	Lys	Pro	Pro	Lys				
30						35				40					45				
tat	gtg	atg	gat	ctt	aag	caa	gat	gga	agc	cac	agc	aca	ggg	gat	ggg	240			
Tyr	Val	Met	Asp	Leu	Lys	Gln	Asp	Gly	Ser	His	Ser	Thr	Gly	Asp	Gly				
				50				55					60						
att	cct	gat	cgc	ttc	tct	gga	tcc	agc	tct	ggg	gct	gat	cgc	tac	ctt	288			
Ile	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Ser	Ser	Gly	Ala	Asp	Arg	Tyr	Leu				
				65				70					75						
agc	att	tcc	aac	atc	cag	cca	gaa	gat	gaa	gca	atg	tac	atc	tgt	ggg	336			
Ser	Ile	Ser	Asn	Ile	Gln	Pro	Glu	Asp	Glu	Ala	Met	Tyr	Ile	Cys	Gly				
				80				85					90						
gtg	ggg	gat	aca	att	aag	gaa	caa	ttt	gtg	tat	gtt	ttc	ggc	ggg	ggg	384			
Val	Gly	Asp	Thr	Ile	Lys	Glu	Gln	Phe	Val	Tyr	Val	Phe	Gly	Gly	Gly				
				95				100					105						
acc	aag	gtc	act	gtc	cta	ggg	cag	ccc								411			
Thr	Lys	Val	Thr	Val	Leu	Gly	Gln	Pro											
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-10

-5

tct ttc tcc cag ctt gtg ctg act caa tgc ccc tct gcc tct gcc tcc 96

Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser

-1

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ctg gga gcc tgc gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144

Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser

15

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25

acg tac acc att gaa tgg cat cag cag cag cca gag aag ggc cct cgg 192

Thr Tyr Thr Ile Glu Trp His Gln Gln Gln Pro Glu Lys Gly Pro Arg

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35

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45

tac ttg atg aaa ctt aag caa gat gga agc cac agc aca ggt gat ggg 240

Tyr Leu Met Lys Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly

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55

60

att cct gat cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc 288

Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu

65

70

75

acc atc tcc agc ctc cag tct gag gal gag gct gac tat tac tgt ggt 336

Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly

80

85

90

gtg ggt gat aca att aag gaa caa ttt gtg tac gtg ttc ggc gga ggg 384

Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly

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acc aaa ctg acc gtc cta ggt cag ccc 411

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tct ttc tcc cag ctt gtg ctg act caa tgc ccc tct gcc tct gcc tcc 96

Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser

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ctg gga gcc tgc gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144

Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser

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acg tac acc att gaa tgg tat cag cag cag cca gag aag ggc cct aag 192

Thr Tyr Thr Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Lys

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 50 55 60
 att cct gat cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc 288
 Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu
 65 70 75
 acc atc tcc agc ctc cag tct gag gat gag gct gac tat tac tgt ggt 336
 Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly
 80 85 90
 gtg ggt gat aca att aag gaa caa ttt gtg tac gtg ttc ggc gga ggg 384
 Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly
 95 100 105
 acc aaa ctg acc gtc cta ggc cag ccc 411
 Thr Lys Leu Thr Val Leu Gly Gln Pro
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-10

-5

tct ttc tcc cag ctt gtg ctg act caa tgc ccc tct gcc tct gcc tcc 96

Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser

-1 1

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ctg gga gcc tgc gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144

Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser

15

20

25

acg tac acc att gaa tgg tat cag cag cag cca gag aag ggc cct aag 192

Thr Tyr Thr Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Lys

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35

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45

tac gtg atg gat ctt aag caa gat gga agc cac agc aca ggt gat ggg 240

Tyr Val Met Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly

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att cct gat cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc 288

Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu

65

70

75

acc atc tcc agc ctc cag tct gag gat gag gct gac tat tac tgt ggt 336

Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly

80

85

90

gtg ggt gat aca att aag gaa caa ttt gtg tac gtg ttc ggc gga ggg 384

Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly

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acc aaa ctg acc gtc cta ggc cag ccc 411

Thr Lys Leu Thr Val Leu Gly Gln Pro

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 Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser
 -1 1 5 10
 ctg gga gcc tgc gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144
 Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser
 15 20 25
 acg tac acc att gaa tgg tat cag cag cag cca gag aag gcc cct agg 192
 Thr Tyr Thr Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Arg
 30 35 40 45
 tac ctg atg gat ctt aag caa gat gga agc cac agc aca ggt gat ggg 240
 Tyr Leu Met Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly
 50 55 60
 att cct gal cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc 288

Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu

65

70

75

acc atc tcc agc ctc cag tct gag gat gag gct gac tat tac tgt ggt 336

Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly

80

85

90

gig ggt gat aca att aag gaa caa ttt gig tac gig ttc ggc gga ggg 384

Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly

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acc aaa ctg acc gtc cta ggc cag ccc

411

Thr Lys Leu Thr Val Leu Gly Gln Pro

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<222> (58).. (411)

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tct ttc tcc cag ctt gtg ctg act caa tgg ccc tct gcc tct gcc tcc 96
 Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser
 -1 1 5 10
 ctg gga gcc tgg gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144
 Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser
 15 20 25
 acg tac acc att gaa tgg tat cag cag cag cca gag aag ggc cct agg 192
 Thr Tyr Thr Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Arg
 30 35 40 45
 tac gtg atg gat ctt aag caa gat gga agc cac agc aca ggt gat ggg 240
 Tyr Val Met Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly
 50 55 60
 att cct gat cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc 288
 Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu
 65 70 75
 acc atc tcc agc ctc cag tct gag gat gag gct gac tat tac tgt ggt 336
 Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly
 80 85 90
 gtg ggt gat aca att aag gaa caa ttt gtg tac gtg ttc ggc gga ggg 384
 Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly
 95 100 105
 acc aaa ctg acc gtc cta ggc cag ccc 411
 Thr Lys Leu Thr Val Leu Gly Gln Pro
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<210> 71

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<213> Homo sapiens

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<222> (1).. (411)

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<221> mat_peptide

<222> (58).. (411)

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Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser

-1

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ctg gga gcc tgc gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144

Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser

15

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25

acg tac acc att gaa tgg tat cag cag cag cca gag aag ggc cct aag 192

Thr Tyr Thr Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Lys

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tac ctg atg gat ctt aag caa gat gga agc cac agc aca ggt gat ggg 240

Tyr Leu Met Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly

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60

att cct gat cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc 288

Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu

65

70

75

acc atc tcc agc ctc cag tct gag gat gag gct gac tat atc tgt ggt 336

Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly
80 85 90
gtg ggt gat aca att aag gaa caa ttt gtg tac gtg ttc ggc gga ggg 384
Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly
95 100 105
acc aaa ctg acc gtc cta ggc cag ccc 411
Thr Lys Leu Thr Val Leu Gly Gln Pro
110 115

<210> 72
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tct ttc tcc cag ctt gtg ctg act caa tcg ccc tct gcc tct gcc tcc 96
Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser
-1 1 5 10

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ctg gga gcc tcg gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144
Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser
    15                20                25
acg tac acc att gaa tgg tat cag cag cag cca gag aag ggc cct agg 192
Thr Tyr Thr Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Arg
    30                35                40                45
tac ctg atg gat ctt aag caa gat gga agc cac agc aca ggt gat ggg 240
Tyr Leu Met Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly
                50                55                60
att cct gat cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc 288
Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu
                65                70                75
acc atc tcc agc ctc cag tct gag gat gag gct gac tat atc tgt ggt 336
Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly
                80                85                90
gtg ggt gat aca att aag gaa caa ttt gtg tac gtg ttc ggc gga ggg 384
Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly
                95                100                105
acc aaa ctg acc gtc cta ggc cag ccc 411
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<210> 73

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-10

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tct ttc tcc cag ctt gtg ctg act caa tgc ccc tct gcc tct gcc tcc 96

Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser

-1

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10

ctg gga gcc tgc gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144

Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser

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acg tac acc att gaa tgg tat cag cag cag cca gag aag ggc cct aag 192

Thr Tyr Thr Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Lys

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tac gtg atg gat ctt aag caa gat gga agc cac agc aca ggt gat ggg 240

Tyr Val Met Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly

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att cct gal cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc 288

Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu

65

70

75

acc atc tcc agc ctc cag tct gag gat gag gct gac tat atc tgt ggt 336

Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly

80

85

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gig ggt gal aca att aag gaa caa ttt gig tac gtg ttc ggc gga ggg 384

Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly

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acc aaa ctg acc gtc cta ggc cag ccc

411

Thr Lys Leu Thr Val Leu Gly Gln Pro

110

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<210> 74

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<212> DNA

<213> Homo sapiens

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-5

tct ttc tcc cag ctt gtg ctg act caa tgc ccc tct gcc tct gcc tcc 96

Ser Phe Ser Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser

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ctg gga gcc tcg gtc aag ctc acc tgc acc ttg agt agt cag cac agt 144

Leu Gly Ala Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Ser

15

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25

acg tac acc att gaa tgg tat cag cag cag cca gag aag ggc cct agg 192
 Thr Tyr Thr Ile Glu Trp Tyr Gln Gln Gln Pro Glu Lys Gly Pro Arg
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 tac gtg atg gat ctt aag caa gat gga agc cac agc aca ggt gat ggg 240
 Tyr Val Met Asp Leu Lys Gln Asp Gly Ser His Ser Thr Gly Asp Gly
 50 55 60
 att cct gat cgc ttc tca ggc tcc agc tct ggg gct gag cgc tac ctc 288
 Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu
 65 70 75
 acc atc tcc agc ctc cag tct gag gat gag gct gac tat atc tgt ggt 336
 Thr Ile Ser Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Ile Cys Gly
 80 85 90
 gtg ggt gat aca att aag gaa caa ttt gtg tac gtg ttc ggc gga ggg 384
 Val Gly Asp Thr Ile Lys Glu Gln Phe Val Tyr Val Phe Gly Gly Gly
 95 100 105
 acc aaa ctg acc gtc cta ggc cag ccc 411
 Thr Lys Leu Thr Val Leu Gly Gln Pro
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<210> 75

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Thr Ala

10019501-10019510